

2. SIGNALS AND ALARMS

2.1 Signals

The signal messages are displayed, based upon their meaning.

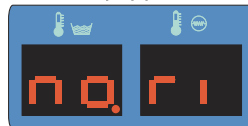
When the LED "F" above the **Regeneration "K"** keys flashes, it means that a total regeneration is needed (only on machines equipped with the optional Water Softner).



When on display "**NO DE**" flashes (alternated to the tank and boiler temperatures and with machine on stand-by mode), it means that the detergent level is low (only on machines equipped with the optional "Chemicals level Sensor").



When on display "**NO RI**" flashes (alternated to the tank and boiler temperatures and with machine on stand-by mode) it means that the rinse-aid chemical level is low (only on machines equipped with the optional "Chemicals level Sensor").



When on the display appears "**NO SA**" (alternated to the tank and boiler temperatures and with machine on stand-by mode) it means that the salt in the bowl inside the tank is finished (only on machines equipped with the optional Water Softener).



When on the display appears "**DOOR**" it means that you are trying an operation that cannot be done with the open door or that you opened the door, interrupting a cycle in progress.



2.2 Alarms

TYPE OF ALARM	CAUSE
B1	BOILER FILLING FAIL
B2	BOILER PROBE FAIL.
B3	BOILER HEAT. ALARM
B4	RINSING FAILED TIME OUT RINSE
B5	BOILER OVERHEATING
E1	WATER LOAD FAILED
E2	TANK PROBE FAIL.
E3	TANK HEATING ALARM
E5	TANK OVERHEATING
E6	TANK DRAINING FAIL.
Z6	TANK LOW LEVEL
Z9	REGENERATION FAIL
Z10	ALARM SL8 - BREAK TANK HIGH LEVEL

B1 BOILER FILLING FAILED:**Cause:**

The machine boiler fill-up was not achieved in the maximum foreseen 5 min. time limit.

Check:

1. The correct water supply from the piping network.
2. If the solenoid-valve filter is clogged. Clean the filter if needed.
3. Solenoid valve **Y5** failure. Change the solenoid valve.
4. The boiler pressure switch failed. Replace if needed. Before replacing the pressure switch, drain the boiler completely.
5. Circuit board failure. Change the circuit board.

B2. BOILER PROBE FAILED:**Cause:**

The circuit board does not detect the boiler sensor.

Checks:

1. Check the electrical connection between circuit board and sensor.
2. Check if the sensor works properly.
3. Check that the sensor did not overheat.

B3. BOILER HEATING ALARM:**Cause:**

The factory-set boiler temperature was not achieved in the maximum foreseen 30 min. time limit.

Checks:

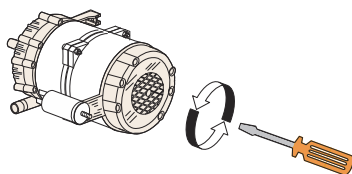
1. If the boiler heating element heats properly.
 - Check the integrity of the electrical heating element.
 - Check the electrical connection.
 - Check the boiler coil-switch (**remote control switch**) protection.
 - Check the boiler safety thermostat. Should the thermostat be overheated, press the reset button to check its efficiency. Replace if needed.
2. Circuit board failure. Change the circuit board.

B4. RINSING FAILED (On atmospheric boiler versions only):**Cause:**

The rinse water was not used during the rinse cycle.

Check:

1. Check the free rotation of the rinse pump. Should the impeller be blocked, rotate the motor shaft manually, by a screw-driver (see pict. 5)
2. Check the rinse nozzles are not obstructed and/or encrusted and they don't allow the water sprays. Clean carefully the nozzle.



pict. 5

3. Drain completely the boiler; disconnect the pipe from the pressure-switch and check it is not obstructed; check also if the air trap assembly is obstructed.
4. The boiler pressure-switch failed. Replace if needed. Before replacing the pressure-switch, drain the boiler completely and check, blowing into the hose, that it is not obstructed.
5. Rinse pump damaged. Replace if needed.
6. Circuit board failure. Change the circuit board.

B4. TIME OUT RINSE:



Cause:

The set rinse time has been exceeded.

Check:

1. Check the free rotation of the rinse pump. Should the impeller be blocked, rotate the motor shaft manually, by a screw-driver (see pict. 5).
2. Rinse pump damaged. Replace if needed.
3. Circuit board failure. Change the circuit board.

B5. BOILER OVERHEATING:



Cause:

The water temperature in the boiler exceeded 105°C.

Checks:

1. The boiler pressure switch failed. Replace if needed.
Before replacing the pressure switch, drain the boiler completely.
2. The pressure switch hose is clogged. Blow air to unclog it.
3. Check the sensor integrity. Replace if needed.
4. Check the boiler coil-switch protection
5. Circuit board failure. Change the circuit board.

E1. WATER LOAD FAILED:



Cause:

The machine wash-tank was not filled in the maximum foreseen 15 min. time limit.

Checks:

1. No water supply to the machine. Open all water supply valves.
2. Check the right functioning of the solenoid valve.
Solenoid valve filter clogged. Clean the filter.
Solenoid valve Y5 failure. Change the solenoid valve.
3. Check the free rotation of the rinse pump. Should the impeller be blocked, rotate the motor shaft manually, by a screw-driver (see pict. 6).
4. Rinse pump failure. Change the pump.
5. The filling of the wash-tank does not stop. Check if the overflow device is present. Check the tank pressure switch.
6. Circuit board failure. Change the circuit board.

E2. TANK PROBE FAILED:**Cause:**

The circuit board does not detect the wash-tank sensor.

Checks:

1. Check the electrical connection between circuit board and sensor.
2. Check if the sensor works properly.
3. Check that the sensor did not overheat.

E3. TANK HEATING ALARM:**Cause:**

The factory-set wash-tank temperature was not achieved in the maximum foreseen 60 min. time limit.

Checks:

1. If the tank heating element heats properly.
 - Check the integrity of the electrical heating element.
 - Check the electrical connection and the safety thermostat.
 - Check the tank coil-switch (**remote control switch**) protection.
2. Circuit board failure. Change the circuit board.

E5. TANK OVERHEATING:**Cause:**

The wash-tank temperature exceeded 90°C.

Checks:

1. Check the sensor integrity. Replace if needed.
2. Check the wash-tank coil-switch protection.
3. Circuit board failure. Change the circuit board.

E6. TANK DRAINING FAILED:**Cause:**

The draining of the wash-tank was not completed within the maximum foreseen time limit.

Checks:

1. Check if the drain pipe is clogged.
2. Check if the drain pump is working properly.
3. Circuit board failure. Change the circuit board.